Scandinavian Journal of Immunology

OFFICIAL JOURNAL OF THE SCANDINAVIAN SOCIETY
FOR IMMUNOLOGY

Volume 37
Numbers 1–6/1993

MANAGING EDITORS
M. HARBOE, J. B. NATVIG AND G. MÖLLER

Volume Contents

Blackwell Scientific Publications
OXFORD LONDON EDINBURGH
BOSTON MELBOURNE
PARIS BERLIN VIENNA

© 1993 Blackwell Scientific Publications Ltd. Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Blackwell Scientific Publications for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service provided that the base fee of $10.00 per copy is paid directly to CCC, 27 Congress Street, Salem, MA 01970, USA. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to the Editor 0300-9475/93 $10.00.

Published for the Scandinavian Society for Immunology by Blackwell Scientific Publications Ltd
Osney Mead, Oxford, OX2 0EL, UK
25 John Street, London WC1N 2BL, UK
23 Ainslie Place, Edinburgh, EH3 6AJ, UK
Suite 500, 5th Floor, 238 Main Street, Cambridge, MA 02142, USA
54 University Street, Carlton, Victoria 3053, Australia

Other editorial offices

Librairie Arnette SA, 2 Rue Casimir Delavigne, 75006 Paris, France

Blackwell Wissenschafts Verlag GmbH, Meinekestrasse 4, D-1000 Berlin 15, Germany

Blackwell MZV, Feldgasse 13, A-1238 Vienna, Austria

ISSN 0300-9475

Contents

Volume 37, No. 1, January 1993

EDITORIAL. Dissociation of Autoaggression and Self-Superantigen Reactivity. *J. A. Gonzalo, I. M. de Alborán & G. Kroemer* 1

Serotonergic 5-HT_{1A} Receptors Regulate a Cell Contact-Mediated Interaction between Natural Killer Cells and Monocytes. *K. Hellstrand & S. Hermodsson* 7

The Secretion of the Third Component of Complement (C3) by Human Polymorphonuclear Leucocytes from both Normal and Lupus Erythematous Cases. *H. F. Faried, T. Tachibana & T. Okuda* 19

Recombinant Human Tumour Necrosis Factor-α (rhTNF-α) and rhTNF-α Analogue Enhance Deposition in the Syrian Hamster. *Th. A. Niewold, E. Gruys, T. Arakawa, T. Shirahama & R. Kisilevsky* 29

Oligonucleotide Probes to the 5′ End of the Framework 3 (FR3) Gene Segment detect Polymorphisms of VH Gene Sequences encoding Biologically Important Amino Acid Residues. *D. B. Rubinstein, M. Symann & T. Guillaume* 33

Tetranectin: a Novel Secretory Protein from Human Monocytes. *H. Nielsen, I. Clemmensen & A. Kharazmi* 39

HLA Class II^+ Human Keratinocytes present *Mycobacterium leprae* Antigens to $CD4^+$ Th1-Like Cells. *T. Mutis, M. De Bueger, A. Bakker & T. H. M. Ottenhoff* 43

Mechanisms whereby Lytic Granules from Cytotoxic T Lymphocytes Damage Guinea Pig Ventricular Myocytes. *O. Binah, R. Kline, G. Berke & B. Hoffman* 53

Membrane-Incorporated Surrogate Receptors Increase Antigen Presentation by Resting B Cells, but not by LPS-Activated Blasts. *C. M. Gontijo & G. Möller* 59

Gastric Interleukin-8 and IgA IL-8 Autoantibodies in *Helicobacter pylori* Infection. *J. E. Crabtree, P. Peichl, J. I. Wyatt, U. Stachl & I. J. D. Lindley* 65

Regulation of Natural Killer Cell Activity by Transforming Growth Factor-β and Prostaglandin E_2. *A. M. Malygin, S. Meri & T. Timonen* 71

Anti-Tumour Activity of Idiotype-Specific, MHC-Restricted Th1 and Th2 Clones *In Vitro* and *In Vivo*. *G. F. Lauritzsen, S. Weiss & B. Bogen* 77

Fibronectin at the Lymphocyte Surface. Evidence for Activation-Dependent Binding to VLA4 and VLA5 Integrins. *D. Hauzenberger & K. G. Sundqvist* 87

Aberrant Tolerance Induction with Cationic Antigens. *M. J. M. Jacobs, A. E. M. van den Hoek, L. B. A. van de Putte & W. B. van den Berg* 97

Idiotypic Vaccination: Immunoprotection Mediated by Anti-Idiotypic Antibodies with Antibiotic Activity. *L. Polonelli, R. Lorenzini, F. De Bernardis, M. Gerloni, S. Conti, G. Morace, W. Magliani & C. Chezzi* 105

SHORT PAPER. Physically Damaged Extracellular Matrix Induces TNF-α Secretion by Interacting Resting $CD4^+$ T Cells and Macrophages. *R. Hershkoviz, L. Cahalon, D. Gilat, S. Miron, A. Miller & O. Lider* 111

Volume 37, No. 2, February 1993

The Nobel Lectures in Immunology
Lecture for the Nobel Prize for Physiology or Medicine, 1984: Derivation and Diversification of Monoclonal Antibodies. *Georges Köhler* 117

Identification of a Vimentin-Like Function Associated Molecule (FAM) on Rat NK Cells: Evidence for Receptor Function. *D. L. Evans, D. T. Harris, J. H. Leary III, A. L. St John & L. Jaso-Friedmann* 131

Quantitation of Gm Allotypes. *V.-A. Oxelius & A.-M. Carlsson* 143

Serum IgG and IgG Subclass Contents in Different Gm Phenotypes. *V.-A. Oxelius* 149

Immunobiological Studies on Experimental Visceral Leishmaniasis. III. Cytokine-Mediated Regulation of Parasite Replication. *B. Saha, S. K. Basak & S. Roy* 155

Impact of HIV-Positive Sera on the Functional Activity of Polymorphonuclear Neutrophils from Healthy Donors. *D. I. Gabrilovich, L. A. Adeeva, L. V. Serebrovskaya, G. K. Shepeleva, Z. K. Suvorova, E. V. Buravcova, V. K. Oganezov, A. E. Platonov, V. V. Habarova, I. M. Posly & V. V. Pokrovsky* 159

A *Trypanosoma brucei brucei*-Derived Factor that Triggers $CD8^+$ Lymphocytes to Interferon-γ Secretion: Purification, Characterization and Protective Effects *In Vivo* by Treatment with a Monoclonal Antibody against the Factor. *M. Bakhiet, T. Olsson, C. Edlund, B. Höjeberg, K. Holmberg, J. Lorentzen & K. Kristensson* 165

Binding of Leukaemic Blasts to Various Subpopulations of Lymphokine-Activated Killer Cells. *A. K. Palucka, A. Porwit & P. Reizenstein* 179

Neutrophil Cytotoxicity Induced by Immune Complexes prepared with Cationized Antibodies. *J. R. Geffner, A. S. Trevani, E. Malchiodi, G. P. Serebrinsky & M. A. Isturiz* 187

The Human Fc Receptor for Mouse Ig2b on Monocytes and EBV-B Cells is Functionally Inhibited by Anti-HLA Class II Antibodies. *S. Holtrop, G. P. M. Rijke-Schilder, R. A. P. Koene & W. J. M. Tax* 195

Characterization of a Tryptase mRNA Expressed in the Human Basophil Cell Line KU812. *T. Blom & L. Hellman* 203

Seasonal Variation and Sex Differences of Circulating Macrophages, Immunoglobulins and Lymphocytes in Healthy School Children. *A. O. Afoke, O. Eeg-Olofsson, J. Hed, N-I. M. Kjellman, B. Lindblom & J. Ludvigsson* 209

Interleukin-4 Bypass of the Immunosuppressive Effect Mediated by Interleukin-2 Receptor Antibodies. *J. Steinmann, C. Herwartz & W. Müller-Ruchholtz* 217

Purification of Amyloid-Associated Heparan Sulphate Proteoglycans and Galactosaminoglycan Free Chains from Human Tissues. *T. Stenstad, J. H. Magnus, G. Husby & S. O. Kolset* 227

Suppression of Mitogen-Induced Lymphoproliferation by Soluble IgG Fc Receptors in Retroplacental Serum in Normal Human Pregnancy. *Å. Aarli, T. Skeie Jensen, E. Ulvestad & R. Matre* 237

Leukaemic T Cells from Patients with Chronic Lymphocytic Leukaemia of T-Cell Origin Respond to *Staphylococcus aureus* Enterotoxin Superantigens. *R. Metzger, G. Melmer, S. Schondelmaier, B. Heckl-Östreicher, C. Nerl, K. Pechhold, J. T. Epplen & D. Kabelitz* 245

Interferon-γ Stimulation of Messenger RNA for Human Secretory Component (poly-Ig Receptor) Depends on Continuous Intermediate Protein Synthesis. *P. Krajči, K. Taskén, D. Kvale & P. Brandtzaeg* 251

The Alternative Binding Site for Protein A in the Fab Fragment of Immunoglobulins. *S. Ibrahim, M. Kaartinen, I. Seppälä, A. Matoso-Ferreira & O. Mäkelä* 257

Virological and Immunological Studies in Patients with Acute Viral Hepatitis. *S. Marcus, M. Al-Moslih, N. G. Al-Tawil & Z. A. Kassir* 265

SHORT PAPER. Structure of the T-Cell Receptor in a Ti$\alpha\beta$, Ti$\gamma\delta$ Double Positive T-Cell Line. *J. Kuhlmann & C. Geisler* 271

Volume 37, No. 3, March 1993

Changes in the Expression of Ig-Associated Proteins on B Lymphocytes Activated by Anti-IgM Antibodies. *L. Vogel, C. Persin & D. Haustein* 277

Adhesion Molecules Involved in Protein Kinase A- and C-Dependent Lymphocyte Adherence to Microvascular Endothelial Cells. *J. P. Turunen, J. Ustinov & R. Renkonen* 282

Preferential Vδ1 Expression among TcR γ/δ-Bearing T Cells in Human Oral Epithelium. *L. F. Pépin, T. Roger, J. Morisset & M. Seman* 289

Anchorage and Lymphocyte Function: Extracellular Matrix Substrata Control Morphogenesis and Interleukin Production but have Minor Effects on DNA Synthesis. *K. G. Sundqvist, L. Pedari & D. Hauzenberger* 295

Pancreatic Gangliosides Delay the Onset of Insulitis and Hyperglycaemia in the Low-Dose Streptozotocin Mouse Model. *E. Anastasi, C. Tiberti, M. Sensi, E. Ponte, R. Filippetti, F. Dotta, E. Vecci, M. G. Fiori & U. Di Mario* 308

Effect of Heat Shock on Susceptibility of Normal Lymphoblasts and of a Heat Shock Protein 70-Defective Tumour Cell Line to Cytotoxic T Lymphocytes *In Vitro*. *G. Geginat, L. Heine & E. Günther* 314

Recombinant Human Interleukin-8 Restores Function in Neutrophils from Patients with Myelodysplastic Syndromes Without Stimulating Myeloid Progenitor Cells. *H. Zwierzina, I. Holzinger, S. Gaggl, H. Wolf, S. Schöllenberger, C. Lam, T. Bammer, D. Geissler & I. Lindley* 322

Responsiveness for Mouse IgG_{2b} Antibodies to the Human α/β T-Cell Receptor/CD3 Complex: Evidence for Genetic Determination and Low Grade Antibody Cross-Linking Not Mediated by Known Fcγ Receptors. *H. J. Schlitt, R. Schwinzer & K. Wonigeit* 329

Association of Pepsin with Type II Collagen (CII) Breaks Control of CII Autoimmunity and Triggers Development of Arthritis in Rats. *C. Vingsbo, P. Larsson, M. Andersson & R. Holmdahl* 337

Human B Lymphocyte *In Vitro* Response to the Group B Streptococcal Type III Capsular Carbohydrate. *R. G. Feldman, G. T. Rijkers & B. J. M. Zegers* 343

Modification of the Complement Binding Properties of Polystyrene: Effects of End-Point Heparin Attachment. *U. R. Nilsson, O. Larm, B. Nilsson, K.-E. Storm, H. Elwing & K. Nilsson Ekdahl* 349

T Cells Recognizing Multiple Peptides of Myelin Basic Protein are Found in Blood and Enriched in Cerebrospinal Fluid in Optic Neuritis and Multiple Sclerosis. *M. Söderström, H. Link, J.-B. Sun, S. Fredrikson, V. Kostulas, B. Höjeberg, B.-L. Li & T. Olsson* 355

Intrathecal Synthesis of Anti-*Borrelia burgdorferi* Antibodies in Neuroborreliosis: a Study with Special Emphasis on Oligoclonal IgM Antibody Bands. *Z.-Y. Wang, K. Hansen, Å. Sidén & M. Cruz* 369

Transient Depletion of T Cells with Bright CD11a/CD18 Expression from Peripheral Circulation during Acute Kawasaki Disease. *S. Furukawa, T. Matsubara, K. Tsuji, K. Okumura & K. Yabuta* 377

Immunoelectrophoretic Characterization of Insulin Monomers and Polymers. *J. Krøll* 381

Volume 37, No. 4, April 1993

The Nobel Lectures in Immunology

Lecture for the Nobel Prize for Physiology or Medicine, 1984: From the Structure of Antibodies to the Diversification of the Immune Response. *César Milstein* 385

On the Interaction between Protein L and Immunoglobulins of Various Mammalian Species. *M. De Château, B. H. K. Nilson, M. Erntell, E. Myhre, C. G. M. Magnusson, B. Åkerström & L. Björck* 399

Anti-Interleukin-2 Receptor Monoclonal Antibody Therapy Supports a Role for Th1-Like Cells in $HgCl_2$-Induced Autoimmunity in Rats. *D. Dubey, J. Kuhn, M. C. Vial, P. Druet & B. Bellon* 406

Cytotoxic T-Cell Clones Isolated from Ovarian Tumour Infiltrating Lymphocytes Recognize Common Determinants on Non-Ovarian Tumour Clones. *C. G. Ioannides, B. Fisk, M. S. Pollack, M. L. Frazier, J. Taylor Wharton & R. S. Freedman* 413

The CD26 Antigen is Coupled to Protein Tyrosine Phosphorylation and Implicated in CD16-Mediated Lysis in Natural Killer Cells. *J. A. Madueño, E. Muñoz, V. Blazquez, R. Gonzalez, P. Aparicio & J. Peña* 425

Partial Biochemical Characterization and Purification of IgG2b Inducing Factor as a New Cytokine from Synovial Fluid of Patients with Rheumatoid Arthritis. *M. Abedi-Valugerdi, A. Ridderstad, H. Ström, G. Möller & E. Möller* 430

Epitope-Specific Differential Modulations within the T-Cell Antigen Receptor Complex. *S. Suzuki, T. Tokudomé, P. Yachelini & M. K. Saizawa* 437

Differences in the Rate of Intracellular Killing of Catalase-Negative and Catalase-Positive *Listeria monocytogenes* by Normal and Interferon-Gamma-Activated Macrophages. *J. T. van Dissel, J. J. M. Stikkelbroeck & R. van Furth* 443

The Primary Structure of Rabbit Serum Amyloid A Protein Isolated from Acute Phase Serum. *P. V. Syversen, J. Juul, M. Rygg, K. Sletten, G. Husby & G. Marhaug* 447

Cholera Toxin Enhances Alloantigen Presentation by Cultured Intestinal Epithelial Cells. *A. K. Bromander, M. Kjerrulf, J. Holmgren & N. Lycke* 452

Modification of Lymphocyte and Monocyte Functional Activity by Polymorphonuclear Neutrophils in HIV Infection. *D. I. Gabrilovich, G. K. Shepeleva, L. V. Serebrovskaya, L. A. Avdeeva & V. V. Pokrovsky* 459

A Low Serum Concentration of Mannan-Binding Protein is Not Associated with Serogroup B or C Meningococcal Disease. *P. Garred, T. E. Michaelsen, G. Bjune, S. Thiel & A. Svejgaard* 468

Identification of a Novel 27-kDa Protein from *Mycobacterium tuberculosis* Culture Fluid by a Monoclonal Antibody Specific for the *Mycobacterium tuberculosis* Complex. *A. Rambukkana, P. K. Das, A. H. J. Kolk, J. D. Burggraaf, S. Kuijper & M. Harboe* 471

The IE Allogeneic Response of T Cells from C57Bl/6 Mice is Associated with Genes in the TCRa Locus. *B. Rubin, C. Gouaillard, G. Wiederanders & J. Kuhlmann* 479

Low Prevalence of Complement Deficiencies among Patients with Meningococcal Disease in Norway. *K. Høgåsen, T. Michaelsen, O. J. Mellbye & G. Bjune* 487

Preparation and Reactivities of Anti-Porcine CD44 Monoclonal Antibodies. *H. Yang, A. Hutchings & R. M. Binns* 490

Linkage Disequilbrium within the HLA Complex does not extend into HLA-DP. *J. M. Baisch & J. D. Capra* 499

Characterization of Two Highly Homologous Autoantibody-Related VH1 Genes in Humans. *P.-M. Yang, T. Olee, D. A. Carson & P. P. Chen* 504

IgA and IgG Subclass Deficiency in a Poor Population in a Developing Country. *S. B. Castrignano, B. Carlsson, M. S. Carneiro-Sampaio, T. Söderström & L. Å. Hanson* 509

Interleukin-4 Enhances Homotypic Adhesion of Activated B-Chronic Lymphocytic Leukaemia (B-CLL) Cells via a Selective Up-Regulation of CD54. *M. Carlsson, O. Söderberg & K. Nilsson* 513

Transfer of $CD8^+$ T Cells into SCID Mice and Activation of Memory Virus-Specific Cytotoxic T Cells. *F. J. Kos & A. Müllbacher* 523

SHORT PAPER. Activated Natural Killer Cells Suppress Myelopoiesis in Mice with Severe Combined Immunodeficiency. *P. Pisa, E. Sitnicka & M. Hansson* 529

Volume 37, No. 5, May 1993

Human B-Cell Clones Expressing Lupus Nephritis-Associated Anti-DNA Idiotypes are Preferentially Expanded without Somatic Mutation. *Y. Hirabayashi, Y. Munakata, O. Takai, S. Shibata, T. Sasaki & H. Sano* 533

Evidence for an Ongoing Role of Class I Histocompatibility Molecules for the Production of Interleukin-2 in Response to Suboptimal Concentrations of Phytohaemagglutinin. *S. Hashimoto, C. C. McCombs & J. P. Michalski* 541

Common Peptide Epitope in Mumps Virus Nucleocapsid Protein and MHC Class II-Associated Invariant Chain. *H. Hyöty, P. Parkkonen, M. Rode, O. Bakke & P. Leinikki* 550

Organ-Specific Regulation of Interferon-γ, Interleukin-2 and Interleukin-2 Receptor during Murine Infection with *Trypanosoma cruzi*. *M. E. Rottenberg, D. Sunnemark, T. Leandersson & A. Örn* 559

CD11b/CD18-Dependent Polymorphonuclear Leucocyte Interaction with Matrix Proteins in Adhesion and Migration. *E. Lundgren-Åkerlund, A. M. Olofsson, E. Berger & K.-E. Arfors* 569

Protective Opsonic Activity of Antibodies against Fibronectin-Binding Proteins (FnBPs) of *Staphylococcus aureus*. *B. Rozalska & T. Wadström* 575

Cyclosporin A does not Inhibit IL-1α-Induced Epithelial Cell IL-6 Secretion. *S. Hedges, W. Agace, M. Svensson & C. Svanborg* 581

Cytokines and PGE_2 Modulate the Phagocytic Function of the β-Glucan Receptor in Macrophages. *Z. Konopski, R. Seljelid & T. Eskeland* 587

Aggregated Human Immunoglobulins Bind to Modified Proteins. *J. P. López-Bote, C. Langa, P. Lastres, C. Rius, A. Marquet, R. Ramos-Ruiz & C. Bernabéu* 593

Oligoclonal Development of Germinal Centre Cells as Detected by Anti-Idiotype Antibodies. *D. De Jong, G. Cramer, A. Brand & P. M. Kluin* 602

Peripheral Lymphoid Hyperplasia and Central Lymphoid Depletion in Mice Treated with a Bacterial B-Cell Mitogen (F3′EP-Si/p90). *M. Lima, D. Portnoi, A. Bandeira & M. Arala Chaves* 605

T-Cell Immunity to Acetylcholine Receptor and its Subunits in Lewis Rats over the Course of Experimental Autoimmune Myasthenia Gravis. *Z.-Y. Wang, H. Link & W.-X. Huang* 615

Volume 37, No. 6, June 1993

Tumour-Like Localized Amyloid of the Brain is derived from Immunoglobulin Light Chain. *L. Eriksson, K. Sletten, L. Benson & P. Westermark* 623

Utilization of the MHC Class I (H-2K^b) Purified Molecule and its Synthetic Peptides for Inhibition of K^b-Specific Suppressor T Cells and their Induction *In Vivo* by the MHC Peptides. *B. D. Brondz, T. V. Anfalova, L. S. Pavlova, E. V. Pankratova, A. G. Kojich & S. A. Moshnikov* 627

In Vitro and *In Vivo* Measurement of Cell-Mediated Immunity in Patients with HIV-1 Infection. *J. C. C. Borleffs, H.-J. Schuurman, H. M. Vrehen, M. van Schaik & E. J. E. G. Bast* 634

The Structure of the Variable Regions of Mouse Monoclonal Antibodies to Hepatitis B Virus Core Antigen. *V. Skrivelis, Yu. Steinberg, V. Bichko, E. Gren & A. Tsimanis* 637

Antibody Response to Meningococcal Polysaccharides A and C in Patients with Complement Defects. *R. Biselli, I. Casapollo, R. D'Amelio, S. Salvato, P. M. Matricardi & M. Brai* 644

Cellular Interactions between Synovial T-Cell Clones from a Patient with Rheumatoid Arthritis. *J. M. van Laar, A. M. M. Miltenburg, P. de Kuiper, M. R. Daha, R. R. P. de Vries & F. C. Breedveld* 651

Cell-Mediated Immune Responses in Renal Transplant Recipients treated with Cyclosporin and Prednisolone with or without Azathioprine. *L. Wramner, L. Mjörnstedt, L. Rydberg & M. Olausson* 656

Expression of β_2m-Free HLA Class I Heavy Chains in Neuroblastoma Cell Lines. *A. Marozzi, E. Meneveri, G. Bunone, C. De Santis, L. Lopalco, A. Beretta, A. Agresti, A. G. Siccardi, G. Della Valle & E. Ginelli* 661

Human Monoclonal IgG Rheumatoid Factors from the Synovial Tissue of Patients with Rheumatoid Arthritis. *I. Randen, K. M. Thompson, S. J. Thorpe, Ø. Førre & J. B. Natvig* 668

Modulation and High Frequency Expression of Autoantibody-Associated Cross-Reactive Idiotypes linked to the V_HI Subgroup in CD5-Expressing B Lymphocytes from Patients with Chronic Lymphocytic Leukaemia (B-CLL). *F. Shokri, R. A. Mageed, P. Richardson & R. Jefferis* 673

IFN-γ is directly Cytostatic to the Extracellular Form (Promastigote) of *Leishmania donovani*. *S. Bhattacharya, P. P. Manna & S. Bandyopadhyay* 680

Modulation of Glucocorticosteroid Binding in Human Lymphoid, Monocytoid and Hepatoma Cell Lines by Inflammatory Cytokines Interleukin (IL)-1β, IL-6 and Tumour Necrosis Factor (TNF)-α. *E. Rakasz, A. Gal, J. Biró, G. Balas & A. Falus* 684

T-Cell Receptor Alpha Haplotype influences Vα Epitope Expression on both Cortisone-Resistant Thymocytes and Lymph Node T Cells. *B. Bogen, L. Gleditsch & A. Teig* 690

SHORT PAPER. The Revised Amino Acid Sequence of Serum Amyloid A (SAA) Protein in Mink. *P. V. Syversen, K. Sletten, G. Marhaug, G. Husby & B. Lium* 696

Author index 699